

EX PARTE OR LATE FILED

ORIGINAL

ORIGINAL

SWIDLER BERLIN SHEREFF FRIEDMAN, LLP

THE WASHINGTON HARBOUR
3000 K STREET, NW, SUITE 300
WASHINGTON, DC 20007-5116
TELEPHONE (202) 424-7500
FACSIMILE (202) 424-7643
WWW.SWIDLAW.COM

NEW YORK OFFICE
THE CHRYSLER BUILDING
405 LEXINGTON AVENUE
NEW YORK, NY 10174
(212) 973-0111 FAX (212) 891-9598

May 6, 2002

RECEIVED

MAY - 6 2002

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

VIA COURIER

Marlene R. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W.
Washington, DC 20554

Re: Ex Parte: WT Docket No. 01-108

Dear Ms. Dortch:

Pursuant to Section 1.1206 of the Commission's rules, this will provide notice that on May 3, 2002, Cloyce Newton (Director of Operations for Golf Technologies and Global Vehicle Communications, John Deere Technologies), Jason A. Francque (Manager, Federal Government Affairs for Deere & Company) and the undersigned met with David Furth, Roger Noel, Linda Chang, Jay Jackson and Susan Singer (Wireless Telecommunications Bureau) concerning issues in the above-captioned proceedings. We urged the Commission to preserve the AMPS standard and channelization plan for at least 10 years. We explained that while Deere & Company has tried, and continues to try, to implement satellite solutions, neither satellite service, nor digital cellular service provide solutions for Deere & Company's telematic applications for reasons of coverage and equipment availability, as well as cost. We stressed the importance of other key issues before the Commission as set forth in Attachment 1 that was provided at the meeting.

Aside from presenting our arguments for preserving AMPS and the channelization plan for at least 10 years, we also responded to inquiries by those attending the meeting. Specifically, we discussed and explained the operation and manufacturing of Deere & Company products that rely on the availability of AMPS. Responding to questions posed by the Wireless Bureau Staff, we explained that upgrading existing equipment requires hardware changes and/or modifications

0+3
No. of Copies rec'd _____
List ABCDE _____

Marlene R. Dortch
May 6, 2002
Page 2

necessitating technical proficiency and downtime for heavy equipment. We explained that the market still lacks an industrial-grade, dual mode modem and that dual mode modems would not solve the problem, as there are so many different types of digital cellular transmission standards. The uncertainties associated with the multiple digital cellular transmission standards, coupled with the issues associated with the coverage of digital cellular, have delayed Deere & Company's efforts to integrate its products into the engine controller component. We also provided a Deere & Company brochure that details the Company's construction product. This brochure is included as Attachment 2.

Sincerely,

A handwritten signature in blue ink, appearing to read "Helen E. Disenhaus".

Helen E. Disenhaus
Ronald W. Del Sesto, Jr.

cc: David Furth
Roger Noel
Linda Chang
Jay Jackson
Susan Singer
Cloyce Newton (Deere & Co.)
Jason A. Francque (Deere & Co.)

ATTACHMENT 1

Talking Points



JOHN DEERE

DEERE SUPPORTS RETENTION OF AMPS STANDARD AND CHANNELIZATION PLAN FOR AT LEAST 10 YEARS

May 3, 2002

The Bottom Line

John Deere is a 164 year old company. The future of Deere is technology based.

This technology and these products are critical to improved efficiency and productivity in agriculture and the heavy equipment industry.

AMPS is the only ubiquitous, continuous-coverage service with universal compatibility in the US, and will likely be the only one for 10 years.

Deere has invested millions of dollars in development and implementation of AMPS-based communication server technologies (hardware and software).

AMPS is the only service that works in the U.S. We tried satellite without success. We use GSM very successfully in Europe.

We understand the FCC is leaning towards deregulation. If left to the market, AMPS will not likely survive because only rural areas have no alternatives.

Hardened dual mode modems are not available.

Next generation hardware platform design has been put on hold due to lack of availability of a dual mode modem.

Background

Deere & Company is a leader in bringing advanced telecommunications-based services, including telematics applications, to the agricultural, construction and commercial equipment industries.

Deere's telecommunications-based services include:

GreenStarTM Precision Farming System
DeereTraxTM Vehicle Fleet Management System for Construction Industry

JDLINK™ Machine Messenger Advanced Management System for Machines and Operators for the Agriculture Industry

Deere not wedded to particular type of communications service
Choice is application-specific, dictated by application's requirements

DeereTrax™ and JDLINK™ Rely on Advanced Mobile Phone Service ("AMPS")

Offers ubiquitous, continuous-coverage service with universal compatibility

Vehicles often in rural areas

Vehicles move between rural and urban areas in a single day

Vehicles move through multiple providers' service areas

Channelization plan ensures seamless compatibility

No interruptions when moving between territories of different service providers

Industry-hardened, robust modems available

Compatible with Deere and third party legacy products that will be in use for many years

Rural and agricultural operators often have no other service options

Equipment integrated into vehicles – not a simple handset replacement issue

Smaller companies particularly use after-market equipment and would be hardest-hit by premature phase-out

Satellite Communication is Unacceptable

Deere's original concept system was satellite communication based (OrbComm). The approach was abandoned because of unacceptable performance and cost.

Unacceptable performance in urban areas (urban canyoning) - would still need a dual mode system.

Data latency can be a problem.

Data cost is substantially higher than cellular.

Satellite transceivers are more expensive.

Satellite data is delivered differently than cellular data – would require system infrastructure change

Digital Service Not Yet a Viable Option in the U.S.

- No common standard

 - Defeats necessary compatibility

- No mandatory coverage rules ensuring ubiquity

 - Rural areas not assured of coverage

- No industry-hardened modems

 - None likely until common 3G standard -- many years away

 - Dual-mode modems similarly unavailable

- Leaves legacy equipment users high and dry

 - Retrofitting and replacement expensive

 - Not an option for rural coverage

AMPS and Current Channelization Plan Should Remain in Place for 10 Years

- Corresponds to heavy equipment life-cycles

- 3G common standard more likely

- Digital deployment more extensive

ATTACHMENT 2

Deere & Company Brochure

DEERE TRAX™

GETTING

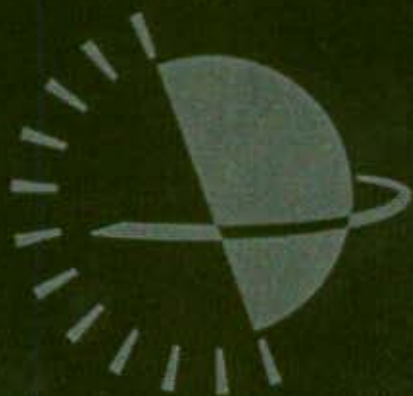
EQUIPMENT

YOU ON THE

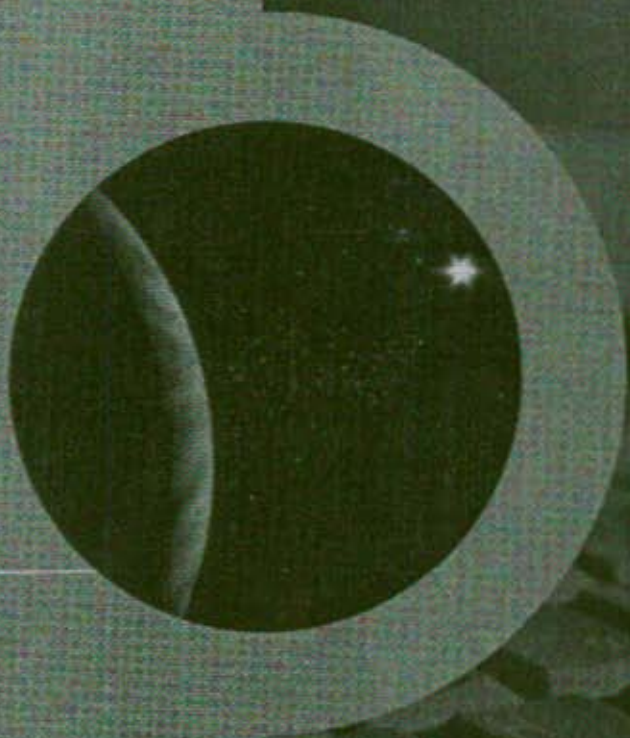
TRACKING

FAST TRAX

SYSTEM



WITH TECHNOLOGY ADVANCING AT WARP SPEED, THE FUTURE SEEMS TO BE LIMITED ONLY BY THE FAR REACHES OF OUR IMAGINATION. WHAT SEEMED IMPOSSIBLE JUST A FEW YEARS AGO, OR EVEN A FEW MONTHS AGO, MAY NOW BE A PART OF OUR DAILY ROUTINES, MAKING OUR JOBS EASIER — AND ENHANCING THE QUALITY OF OUR LIVES.



QUESTIONS & ANSWERS

Q What is DeereTrax tracking?

A It is a new product designed specifically for you to solve many equipment maintenance needs. Installation of the DeereTrax equipment tracking system gives a machine's owner electronic visibility of that machine's location and hours.

Q Who owns data generated by the DeereTrax system? And, who has access to that data?

A The DeereTrax owner owns the data and controls access.

Q Can DeereTrax data be exported into other computer-based applications?

A Yes. The data is in a comma delimited (CSV) format and can be input into spreadsheet, database, or mapping applications.

Q Does DeereTrax require any additional software?

A No. Only a Web browser and access to the Internet with an e-mail account are required.



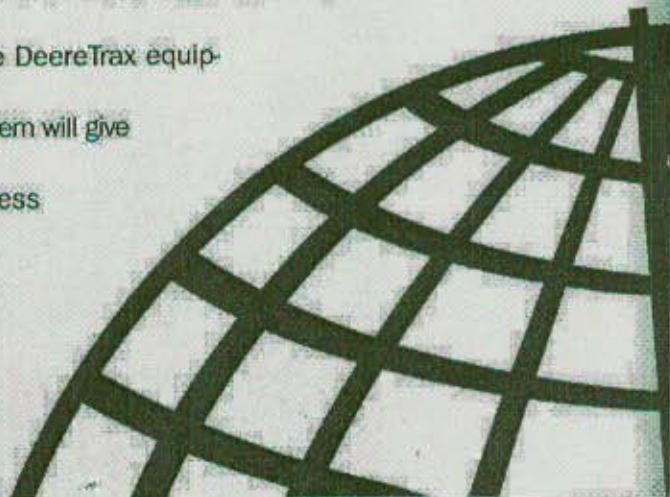
The more we do, THE MORE WE DO, THE MORE THERE IS TO DO. the more there is to do.

We live in a time when things are constantly on the move. The more places you can be at one time, the better off you are. Time management is so important to your success. That's why John Deere is continually looking for ways that will allow you to get more done, in less time.

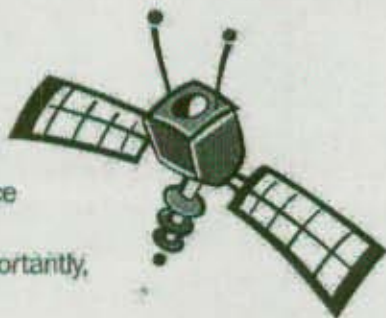


As a proven leader in innovation and technology, John Deere is pleased to announce a new service that can change the way you do business, resulting in long-term positive results for your bottom line.

DeereTrax equipment tracking system is a new product designed specifically to solve many of your equipment-maintenance needs. Not only does it give you a quick, convenient, and accurate way to pinpoint the location of your machines, it also provides you with the number of hours run on each machine. Installation of the DeereTrax equipment tracking system will give you electronic access

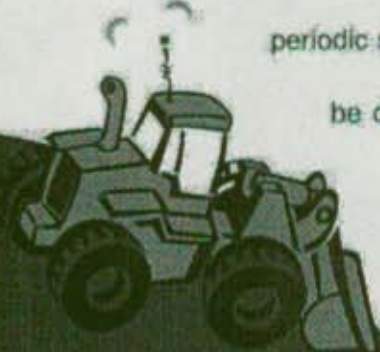


to this information, providing you with effortless tracking of the maintenance needs of your equipment. And, more importantly, it can all be done from your desk.



Designed to outfit your entire fleet, it's obvious why this unique product isn't Deere specific. The DeereTrax equipment tracking system will fit any brand and any type of equipment. No matter the name — or the model — DeereTrax will work for you. But don't stop there. The DeereTrax system also effectively tracks smaller machines, even pickup and service trucks.

Imagine the maintenance program you could set up. And it would be easy. Once each machine is equipped with the necessary hardware, all the answers you need are at your fingertips. You can download the information into your maintenance software or an Excel spreadsheet. Hit "print" on your computer and you have everything you need to effectively schedule periodic service calls. And all of this can be done from your office — at any time of day or night.



QUESTIONS & ANSWERS

Q How does the system work?

A Each DeereTrax equipment tracking system kit contains two antennas, one communications and one Global Positioning System (GPS), that mount onto the machine. In addition, a communications controller is mounted to the machine and powered through the alternator connections. Location information is received from the GPS satellite system and "married" with the internal clock, logging the machine hours. This combined data is sent to the remote database via the wireless modem. Then, with a click of a button, you can access the information by directing that data into your maintenance software or the provided Excel spreadsheet.

Q Why two antennas?

A The GPS antenna establishes the location. The communications antenna receives and sends data to the data warehouse.



VISIT US AT OUR WEB SITE:
WWW.DEERE.COM
GO TO: CONTRACTORS
GO TO: DEERE TRAX



QUESTIONS & ANSWERS

Q How is it priced?

A The DeereTrax equipment tracking system hardware kit is priced relatively low, below competitive systems. Similar to your cellular phone contract, a yearly service fee will be charged based on the length of the contract chosen and the number of times the machine is "contacted" each month.

Q The system sounds complicated — is it hard to install?

A No, that's the nice part. The kit is designed to be installed in very little time.

Q Can a machine equipped with DeereTrax tracking be communicated with while located inside a building?

A With line of sight lost with GPS satellites, accurate location information cannot be transmitted. Contact with the machine and reports, giving accurate machine hours continue. DeereTrax will report last reported location.



BENEFITS

FEATURES

Automatically tracks machine hours

You won't have to physically go out and read the hourmeter on equipment

Automatically tracks machine location

Great for multiple pieces of equipment on multiple jobsites

Lets you know where each DeereTrax equipped machine is located

Downloads to any maintenance software program

Can stay with current maintenance program

Attractive purchase price

You will want to equip your entire fleet

Easy to install

Customer may be able to install

All-makes application

Can easily be used for all makes and models of equipment, including service and delivery trucks

Ability to report when shut down

Can report up to three days



Power Requirements	12 volts or 24 volts DC. With key off, <1.5 amp hours over 3 days, then shuts down.
Machine Hours	Accumulated based on "engine running." Some installations may have to be based on "key on" only.
Communication Mode	While engine is running: GPS: Continuous updating. Reports generated as scheduled. Contacts can be made at any time. While engine is not running: Contact to the DeereTrax unit is available for eight hours. Responds to scheduled reports for 72 hours. GPS information is updated every two hours for 72 hours.
Stored History	DeereTrax stores information only for the current and proceeding year (maximum, 24 months).
Mapping Program	Mapquest Included as a standard in the Web application. Street-level detail for U.S. and Canada. Continuously updated.
GPS Accuracy	Within 10 meters.
Wireless Service	GTE Win4.
Government Certification	United States — FCC Canada — Industry Canada.
Diagnostics	Internal to wiring harness. (GPS status, engine running, cellular status, communication with DeereTrax application available.)
Antennas	Cellular — Low-profile vertical antenna with Teflon coaxial cable. GPS — Ruggedized active antenna with external cable connection with Teflon coaxial cable.
Communications Controller	Waterproof. Dust proof/dirt-proof. Capable of remote diagnostics. Capable of being remotely programmed and upgraded. Standard JD ruggedized as other JD controllers. Vibration tested to 5 g's on 3 axes.
Operating Temperature	30° C to +70° C. (30° F to +158° F)
Speed of Data Poll Contact	After contact is initiated, connection to DeereTrax unit typically takes less than one minute.
DeereTrax Support	24x7 Free Call Support.

Q Are the machine hours reported by DeereTrax monitoring taken directly from the machine hourmeter?

A No. Hours are taken from an accurate clock internal to the communication controller. This clock advances normally when the machine is running.

Q How are the communication controller clock and the engine hourmeter synchronized?

A Note hourmeter reading on machine. Access DeereTrax Information via your Web browser. Click on "Equipment Administration" tab, and select the machine to have hours synchronized. In Machine Description field, click on "Readjust the Machine Hours Now" button and enter the new hourmeter reading noted from the machine hourmeter. A second manual alternative for synchronizing hour readings is outlined in the installation instructions.



VISIT US AT OUR WEB SITE:
WWW.DEERE.COM
GO TO: CONTRACTORS
GO TO: DEERE TRAX



DEERE & COMPANY

GLOBAL VEHICLE COMMUNICATIONS

3159 ROYAL DRIVE, SUITE 320

ALPHARETTA, GA 30022

770.521.7700

[HTTP://DPS.DEERE.COM](http://dps.deere.com)



JOHN DEERE

BUILT ON THE PAST.

POSITIONED FOR THE FUTURE.



DEERE -TRAX-

EQUIPMENT TRACKING SYSTEM

SPECIFICATION SHEET

Fleet Management Technology

Built to John Deere stringent quality standards, the DeereTrax Communication Controller was specifically designed for the heavy equipment environment. Enclosed in an all-aluminum, ruggedized housing are the modem, micro-processor, and interface board.



Communication Controller

Power management logic is integral and helps to prevent excessive battery drain problems on idle equipment. Low-profile antennas are included for both the cellular transceiver and GPS receiver, and all cabling is armor covered.



Cellular Antenna



GPS Antenna

The standard web-based software allows for the collection and monitoring of engine run hours, location and work site management. The software can also maintain preventive maintenance records and monitor asset utilization. Depending upon customer need, additional information can be collected and transmitted through the configurable I/O ports.



Features

- JDQ53.2 tested and qualified
- Cast aluminum housing
- Over-the-air programmability
- Configurable I/O ports
- Integral power management software
- Low-profile antennas
- Easy to use website

Benefits

- Survives the heavy equipment environment
- Flexible installation configurations
- Works on all machine types
- One location for machine information



JOHN DEERE

Specification Sheet



General Specifications

Operating Voltage 12-32 VDC

Power Consumption	<u>13.6 VDC</u>	<u>24 VDC</u>
Transmit:	900ma	450ma
Full Power Mode:	250ma	130ma
Ears On Mode:	95ma	50ma
Power Save Sleep:	2.5ma	4ma

Memory 512 kB of Flash memory for code updates and message data storage

Processor Hitachi H8/3644F

I/O Ports Spare - Available for customer use

- (1) General Purpose Programmable I/O
(0-5)v Analog/Digital Input
(0-5)v CMOS Digital Output
- (1) Opto Isolated Input
Input Impedance: 10k
Max differential input voltage: +/-36V
continuous isolation: 1500V between the input and output

Modem Bell 212A (1200 bps)

Physical Specifications

Communications Controller

Dimensions: 7"W x 2.25"H x 9.5"H
Weight: 3.58 lbs.
Enclosure: Heavy-duty aluminum, water tight
Mounting: Stainless steel bracket included
Connectors: Water Resistant
Cabling: Heavy-duty pre-assembled, 15 ft.

GPS Antenna

Dimensions: 3.4"D x 0.90"H
Weight: 4 oz.
Enclosure: Active - 5 VDC at 20ma - 26 dB gain
Mounting: TNC connector
Connectors: RP (reverse polarity) TNC
Cabling: 17 ft. Teflon Coax
Receiver: Internal, L1 frequency (1575.42 MHz), C/A Code 12 Channel Continuous Tracking
Update Rate: 1 Hz
Accuracy: +/- 25 meters without SA
Velocity: +/- 0.1m/sec (typ.)
Acquisition: Cold Start < 60 seconds (avg.)
Warm Start < 40 seconds (avg.)
Hot start, 8 seconds (avg.)
Satellite Reacquisition Time: 100 msec
Minimum Signal Tracked: -170 dBW

Cellular Antenna

Dimensions: 1.5"D x 2.5"H
Weight: 6 oz.
Enclosure: 3 dB gain
Mounting: Motorola NMO
Connectors: TNC
Cabling: 17 ft. Teflon Coax

Cellular Antenna Physical Specs - Continued

AMPS (Advanced Mobile Phone Service)
Transceiver: Class II, 631 Milliwatt output
Frequencies: Transmit Frequency: 824-849 MHz
Receive Frequency: 869-894 MHz

Environmental Specifications

Operating Temp 70C to -20C
Storage Temp +105C and -55C
Operating Humidity 70% RH at 75C, 303 Hg (partial vapor pressure)
Storage Humidity 95% RH at 40C
Vibration 5g's peak with 1.5mm peak-to-peak displacement in 3 axes
Operating Shock 50 g's
Inorganic Dust Dust particles sealing to 40 micron

Cleaning Connector: Tested to 375 kPa (55 psi) spray wash held at 1m with no impaired functions

Enclosure: Waterproof

Salt Spray Tested 35C for 48 hours with atomized NaCl with no detrimental corrosion or impaired function.

Splash Tested various chemicals to include, but are not limited to, fuels, lubricants, ethylene glycol, rain, battery acids, refrigerant, paints and fertilizers with no detrimental corrosion or impaired function

Electrical Transients Inductive load switching of 600 FAC for 1ms survivability

Reverse Polarity Protection Yes

Jump Start +26.5 VDC at 70C for 5 minutes

Short Circuit Protection Internal for all connection points

Electrostatic Discharge Internally protected electrostatic discharge per IEC-801-2

Approvals and Ratings

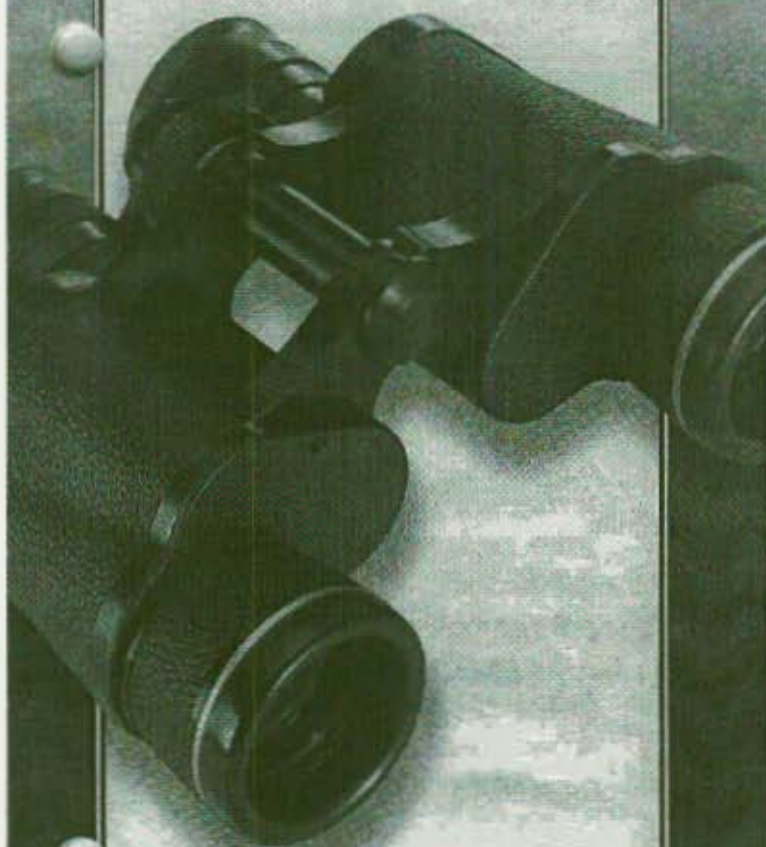
FCC Part 22 Subpart H Compliance with electromagnetic compatibility requirements
FCC Part 15

Industry Canada Compliance with electromagnetic compatibility requirements
RSS-118

John Deere Standard Environmental Design & Testing of Electronic & Electrical Components
53.2

DeereTrax™ Tracking System

CONSTANT SURVEILLANCE



The more we do,
the more there is to do.

We live in an age driven by the philosophy: "The more you can do, the more there is to do." To be successful, you must continually be moving – sit still and you won't succeed. That's why your John Deere dealer is always looking for proactive, fix-before-fail strategies on machine maintenance that reduce catastrophic downtime. Deere's solution – Total Repair Cost Management (TRCM) – is a full-line of programs and services that will help you control costs, save time, and reduce stress.

Getting you on the fast track.

DeereTrax equipment tracking system is a new product designed specifically to solve many of your equipment maintenance needs. Not only does it give you a quick, convenient, and accurate way to pinpoint the location of your machines, it also provides you with the number of hours run on each machine.

Installation of the



**DEERE
-TRAX-**
EQUIPMENT TRACKING SYSTEM

DeereTrax equipment tracking system will give you electronic access to this information, providing you with effortless tracking of the maintenance needs of your equipment. And, more importantly, it can all be done from your desk.

Your John Deere dealer knows that not every machine in your fleet has the Deere name on it. That's why this unique product isn't Deere specific. The DeereTrax equipment tracking system will fit any brand and any type of equipment. No matter the name – or the model – DeereTrax will work for you.

But don't stop there. You can also use DeereTrax to effectively track smaller machines, even your pickup and service trucks.



Features

Automatically tracks machine hours

Automatically tracks machine location

Downloads to any tracking program

Attractive purchase price

Easy to install

All-makes application

Ability to report when shut down

Benefits

You won't have to physically go out and read meter on equipment

Great for multiple equipment on multiple jobsites

Can stay with current maintenance program

You will want to equip your entire fleet

You may be able to install

Can easily be used for all makes and models of equipment, including service and delivery trucks

Can report up to three days

Sounds too good to be true?

Each machine is outfitted with a simple tracking kit that takes a minimum amount of time to install. And you don't need to go to your dealer for installation, you can do it in your own shop.

Each DeereTrax equipment tracking system kit contains two antennas (one communications and one Global Positioning System GPS), that mount onto the machine. A communications controller is also mounted to the machine and powered through the alternator connections. Location information is received from the GPS satellite system and "married" with the internal clock, logging the machine hours. This combined data is sent to the remote database via the wireless modem. Then, with a click of a button, you have the capability to access the information using maintenance software or the provided Excel spreadsheet.

You don't have the time — or the staff — necessary to track your equipment? No problem — your John Deere dealer's staff can do it for you. They can provide a maintenance program custom designed to meet your needs and capable of detecting any maintenance service, before it's needed.

The opportunities are endless.

For contractors with large fleets at multiple locations, the DeereTrax equipment tracking system will provide a simple way of plotting periodic service calls. A planned maintenance strategy could be implemented to maximize equipment utilization.

But even if you're not a large contractor, the DeereTrax equipment tracking system can be a very important part of your success. The more places you can be at one time, the better off you are. Since time management is so important, DeereTrax will take the stress out of keeping track of your machine's location, along with providing an up-to-date account of the hours logged on it. And all of this can be done from your office — and at any time of day or night.



NOTHING RUNS LIKE A DEERE®



DEERE/John Deere USA, Inc.

MAINTENANCE IDEAS

**Keeping Tabs on
Your Equipment**

John Deere's DeereTrax Equipment Tracking System provides the ability to track the location of each piece of equipment in a contractor's fleet, the number of hours logged as well as maintenance needs. The system allows owners to track all of their equipment, regardless of make or model, from the convenience of their office via an Internet browser. This includes all service and other utility vehicles.

Each DeereTrax Equipment Tracking System kit, which mounts easily onto the machine, contains two antennas, one communications and one global positioning system (GPS), a communications controller and a wiring harness.

Location information is received from the GPS satellite system and "married" to the internal clock in the communication controller, which logs machine

hours. The communications controller, powered by the machine, receives and sends data to the remote database via a wireless modem. At any time, the fleet owner can access that information via the computer and direct it into maintenance software or a provided Excel spreadsheet.

The hardware kit can cost as little as a couple hundred dollars with a contract to just under \$1,000 with no contract, and the service is priced from \$20 to \$50, depending on plan or length of contract. A monthly service fee will be charged based on the length of the contract chosen and the number of times each machine is "polled" each month. Thirty-five machine reports are standard with each contract. For large-fleet owners at multiple locations, the system provides a way to "plot" periodic service calls and plan a maintenance strategy.

Geofencing is a standard feature and a good theft deterrent. The customer can establish an electronic circular fence around his machines. When a DeereTrax-equipped machine crosses the electronic fence, it automatically generates an alert that can be observed via e-mail,

cell phone or pager at any time. For further information, contact a Deere construction equipment dealer or call 800/506-3373.



DeereTrax allows owners to track all of their equipment, regardless of make or model, from the convenience of their office.

FEB, 2001